OFGS File: P/2334-9 (DIV)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Jonathan M. GERSHONI Date: December 19, 2001

Serial No.: Not Yet Known

Filed: Herewith

For: ANTIBODIES DIRECTED AGAINST BINDING-ASSOCIATED EPITOPES

U.S. Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

PRELIMINARY AMENDMENT TO ACCOMPANYING DIVISIONAL APPLICATION UNDER 37 C.F.R. §1.53(b)

Sir:

Preliminary to the examination of the above application, please amend the above-entitled patent application as follows.

FEE CALCULATION

Any additional fee required has been calculated as follows:

_____ If checked, "Small Entity" status is claimed.

	NO. CLAIMS AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR		EXTRA PRESENT		RATE		ADDIT. FEE
TOTAL	16	MINUS	20	* =	0	X	($9 SE or $18)	$	0.00
INDEP.	1	MINUS	3	** =	0	X	($40 SE or $80)	$	0.00
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM						X	($135 SE or $270)	$	0.00
* not less than 20		** not less than 3					TOTAL	$	0.00

If any additional payment is required, a check which includes the calculated fee of $0.00 (OFGS Check No. _____) is attached.

In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

CONTINGENT EXTENSION REQUEST

If this communication is filed after the shortened statutory time period had elapsed and no separate Petition is enclosed, the Commissioner of Patents and Trademarks is petitioned, under 37 C.F.R. §1.136(a), to extend the time for filing a response to the outstanding Office Action by the number of months which will avoid abandonment under 37 C.F.R. §1.135. The fee under 37 C.F.R. § 1.17 should be charged to our Deposit Account No. 15-0700.

AMENDMENTS

_X_ If checked, amendment(s) to the specification and/or claims are submitted herewith.

1. _X_ If checked, an abstract is submitted as the last page of Appendix A.

2. Specification:

At page 1, line 1 (after the title), please add the new section attached hereto as Appendix A pursuant to 37 C.F.R. § 1.121(b)(ii). Entry is respectfully requested.

3. Claims:

Please cancel claims 1-29 without prejudice.

Please add new claims 30-45 pursuant to 37 C.F.R. § 1.121(c)(i) as set forth in the "clean" version attached hereto as Appendix A. Entry is respectfully requested.

___ If checked, the optional complete set of "clean" claims pursuant to 37 C.F.R. § 1.121(c)(3) is attached hereto as Appendix C.

REMARKS

By this Preliminary Amendment, Applicant has canceled claims 1-29 without prejudice, added new claims 30-45. Accordingly, claims 30-45 are pending in the subject application. Applicant maintains that the above amendments raise no issue of new matter.

In view of the foregoing considerations, it is respectfully submitted that this application is now in condition to be allowed and the early issuance of a Notice of Allowance is respectfully solicited.

EXPRESS MAIL CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail Post Office to Addressee (mail label #EL334669075US) in an envelope addressed to: U.S. Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202:

Dorothy Jenkins
Name of Person Mailing Correspondence

Signature

December 19, 2001
Date of Signature

MM/CCA:lac

Respectfully submitted,

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APPENDIX A
"Clean" Version of Each Paragraph/Section/Claim
37 C.F.R. § 1.121(b)(ii) and (c)(i)

SPECIFICATION:

New section at page 1, line 1 (after the title):

This is a division of application Serial No. 09/645,648, filed August 24, 2000, now allowed, which is a division of application Serial No. 09/433,420, filed November 4, 1999, now U.S. Patent No. 6,143,876), which is a division of application Serial No. 09/235,592, filed January 22, 1999, now U.S. Patent No. 6,020,468, issued February 1, 2000, which is a continuation of application Serial No. 08/464,726, filed July 31, 1995, now U.S. Patent No. 5,925,741, issued July 20, 1999, which is based upon PCT International Application No. PCT/US93/12639, filed December 29, 1993, claiming priority of Israeli Application Nos. 104291 and 104767, filed December 31, 1992 and February 17, 1993, respectively.

CLAIMS (with indication of amended or new):

(New) 30. A method for detecting an antigenic epitope on a cell surface, comprising contacting said antigenic epitope with an antibody having a binding affinity to said antigenic epitope, wherein said antigenic epitope is of a complex formed between two members of a binding couple and is a member of a group consisting of:

(i) an epitope consisting of a sequence in a member of a binding couple, which becomes substantially more accessible to antibodies or assumes a new conformation after binding of the two members to one another,

(ii) an epitope consisting of two or more sequences in a member of binding couple which upon binding of the two members, become closely associated to form an antigenic epitope, and

(iii) an epitope consisting of two or more sequences, at least one being in one member of a binding couple, and at least one other being in the other member of the binding couple and upon binding of the two members, said two or more amino acid sequences become closely associated with one another to form an antigenic epitope;

said antigenic epitope being immunogenic and wherein said binding is at least 5 fold higher than the antibody's binding affinity to either of the two members themselves.

(New) 31. The method of claim 30, wherein the presence of the epitope on the cell surface is the result of a viral infection.

(New) 32. The method of claim 31, wherein the viral infection is an HIV viral infection.

(New) 33. The method of claim 30, wherein the binding affinity of the antibody to the epitope of the complex is at least 10 fold higher than the antibody's binding to either of the two members of the complex by themselves.

(New) 34. The method of claim 30, wherein one member of the complex is HIV gp120 protein and the other member is CD4 protein.

(New) 35. The method of claim 30, wherein the antibody is directed against an epitope which comprises of a sequence of HIV gp120 protein.

(New) 36. The method of claim 30, wherein the antibody is a monoclonal antibody

(New) 37. The method of claim 30, wherein the epitope is revealed after antibody-antigen or ligand receptor binding.

(New) 38. The method of claim 30, wherein the epitope is revealed after virus or viral particle-receptor binding.

(New) 39. The method of claim 30, wherein the epitope is revealed after HIV or gp120-CD4 binding.

(New) 40. The method of claim 39, wherein the epitope comprises a sequence in the gp120 protein.

(New) 41. The method of claim 30, wherein the epitope binds to a monoclonal antibody produced by the GC-10 hybridoma deposited with the European Collection of Animal Cell Culture (ECACC) under the accession No. 93020415.

(New) 42. The method of claim 41, wherein the epitope is the anti-idiotype of a monoclonal antibody produced by the GC-10 hybridoma.

(New) 43. The method of claim 30, wherein the epitope is revealed after binding of gp120 to an anti-gp120 antibody.

(New) 44. The method of claim 43, wherein the epitope comprises a sequence in the gp120 protein.

(New) 45. The method of claim 37, wherein the ligand is selected from the group consisting of hormones, neurotransmitters and toxins.

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ANTIBODIES DIRECTED AGAINST BINDING-ASSOCIATED EPITOPES

Abstract of the Invention

Binding of two members of a binding couple reveals epitopes which are revealed only after binding and the monoclonal antibody secreted from the hybridoma cell line CG-10 directed against these epitopes bind to the bound couple at a significantly higher affinity than their binding affinity to either of the two members themselves when not bound to one another.